

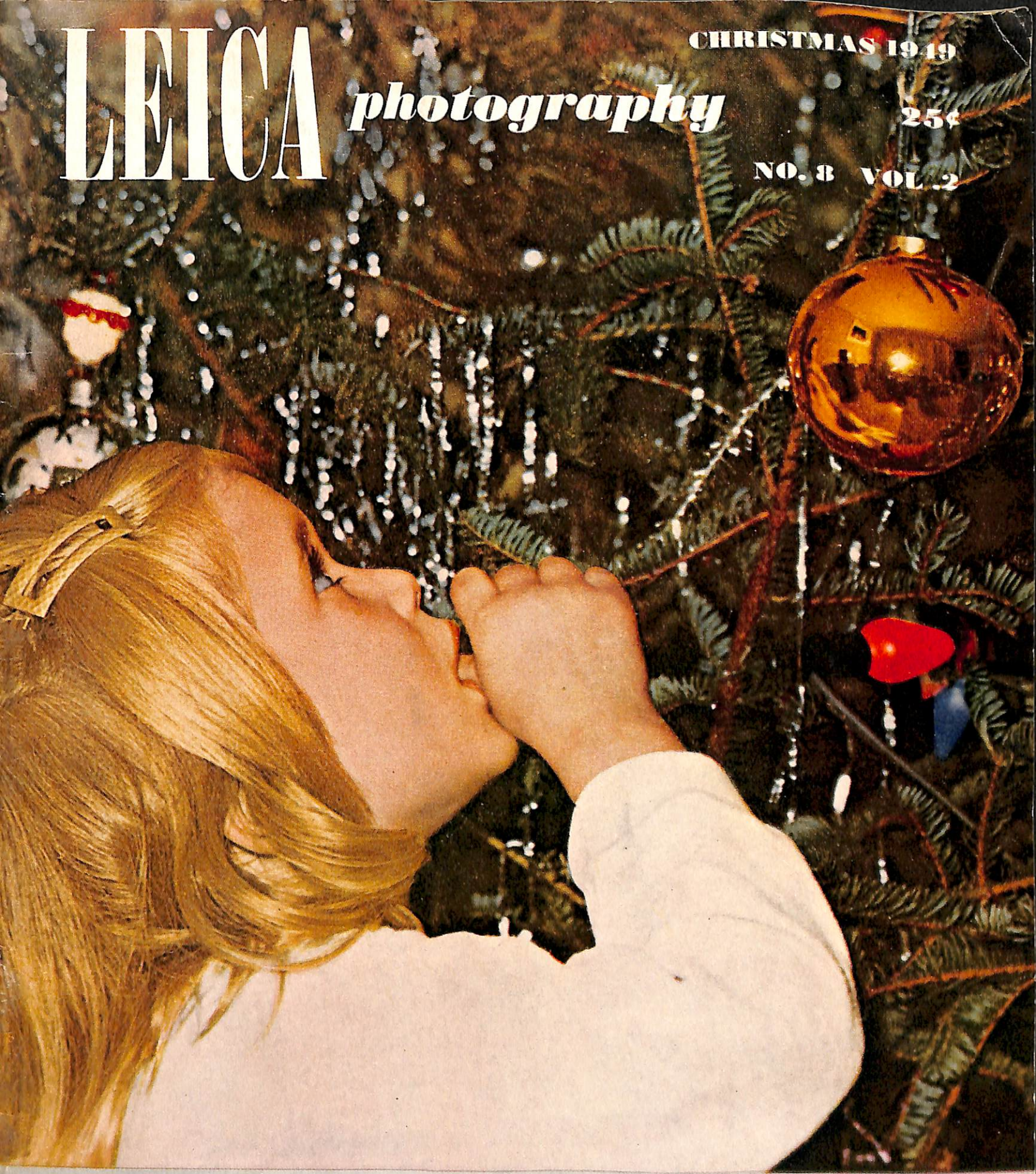
LEICA

photography

CHRISTMAS 1949

25¢

NO. 8 VOL. 2



Merry Christmas to ALL!



#1
 IIc Leica Camera with
 Summar 50mm Coated F:2
 Lens; Elmar 35mm Wide
 Angle Coated F:3.5 Lens;
 Imarect Universal View
 Finder.
 Total Value . . . \$585.20
 SPECIAL CHRISTMAS
 PRICE . . . \$519.75

#3
 IIc Leica Camera with
 Elmar 50mm Coated F:3.5
 Lens; Elmar 35mm Wide
 Angle Coated F:3.5 Lens;
 and Imarect Universal View
 Finder.
 Total Value . . . \$480.20
 SPECIAL CHRISTMAS
 PRICE . . . \$432.25

#2
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 same equipment as #1.
 Total Value . . . \$497.70
 SPECIAL CHRISTMAS
 PRICE . . . \$449.75

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 IIc Leica Camera with
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 SPECIAL CHRISTMAS
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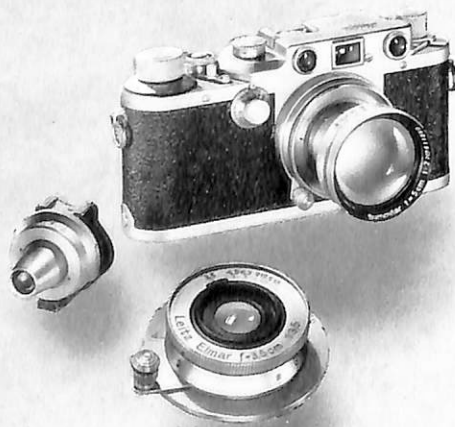
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CHRISTMAS 1949

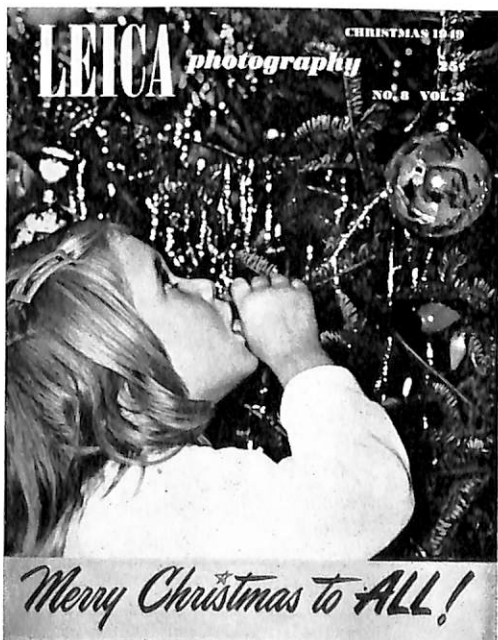
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NO. 8

VOL. 2

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CHRISTMAS . . . Leica Camera color photograph by Else Steiner, St. Albans, New York. Made with a Leica IIIc, Summarex 85mm. coated speed lens at F:1.5; one G.E. bulb in Leitz Synchronized Flash Unit, Model VIIIa — at 1/60 sec.; Kodachrome 'A' Film. Leitz Chrome Flash Filter. Four-color plates by Condé Nast. from 16" x 20" color print by Evans-Peterson, New York.

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EDITED BY THOMAS H. ELWELL, F. R. P. S.

FLASH FOR COLOR PORTRAITURE

by G. E. Herbert, New York

It is my belief that the greatest single contribution to simplifying color photography has been the development of the Leitz Model VIII Synchronized Flash Unit—an accessory which enables even the novice to easily obtain fine color photographs. The precision workmanship of the Leica, coupled with this accessory overcomes many of the difficulties involved, and makes simplicity the key-note of the techniques used in obtaining good color shots in this fascinating field of photography.

For color portraits I would suggest that a child be used as your first sitter. The naturalness of the youngster will avoid the forced pose of the usually self-conscious adult.



The background should be of a very light blue or gray—either of these tints are good complementaries of flesh tones. A colored blanket or wall paint of a dead matte finish may also be used. Use a room where all daylight can be eliminated, and place the subject as close to the background as possible. The child's clothes should be a pastel shade, preferably a pink or beige.

Place the flash gun in the vertical position on a sturdy tripod with your Leica directly on the gun (but without the bracket). Then connect the contacts of the extension cord, and set the slider on the synchronizer and the shutter speed at 1/20 of a second. Insert a G. E. or Westinghouse

#5 bulb, and adjust the gun reflector to center the light, making certain it is adjusted to face in the same direction as the lens. (Kodachrome type 'A' film is, of course, already loaded in your Leica.) Use plenty of house light so as to see the subject clearly while focusing, and never touch the focus while setting the lens. The diaphragm marking should be on F:12.5, and the distance at exactly 1.6 meters (5 feet). Look through the rangefinder at the subject's eyes, and adjust the tripod and the camera until the exact distance is reached. When finally set, the camera should be slightly higher than the child's eyes, and the Imarect Finder set for parallax at 1.6 meters (5 feet). Recheck the diaphragm, and finally—use the proper Leica lens shade! The simple process of setting up the equipment has now been accomplished, and your own artistic sense will tell you when to squeeze off the shot.

I strongly recommend the #5 bulb because of its flash duration of 1/50th of a second, and also because of the larger light output than the conventional large G. E. 31 focal plane bulb. In addition to being cheaper, it is easier to obtain because it

is a 'universal' type for all cameras with a focal plane shutter; however, this bulb may be used only at an 'open shutter' speed of 1/20 of a second. Since the guide number with the Leitz Chrome flash filter is 63 with the #5 bulb at 1/20 of a second, the shutter setting and synchronized slider is set at this figure. At 3 meters, therefore, your F stop would be exactly F:6.3. I can guarantee that the results you will obtain using this method will be consistent. This first, simple way will give better results than the complicated multi-flash method.

My reason for using a Leica Camera for professional color work is based mainly on the high resolving power of all Leitz lenses. Time and again I have compared the results of my Hektor 135mm. lens with the work of a long 24" lens on studio cameras, and can truthfully say that there is no comparison as to sharpness and all-around quality. In addition, I believe that 35mm. color film is of more consistent manufacture than the larger sheet color film. This is a result of the extensive development of the machinery used in production, which has been caused by the ever-increasing demand of the motion picture industry. The Leica is a precision instrument which registers the film in perfect alignment with the lens, while with most larger cameras, one relies on a small lens stop to compensate for inaccuracies in the film register.

The false impression that it is impossible to make a good 16 x 20 or 14 x 17 Carbro or dye transfer print from a 35mm. slide is largely due to the fact that there are so few color print labs that actually know how to make large professional prints from the smaller transparencies. One method in making publication color reproductions, especially advertisement plates, is to begin with a 16 x 20 Carbro with the necessary art work made directly on the print; from which the photo engraved color plates are made. Another method is to use a large color transparency, working directly from it at every stage. Both methods are also used when working from Leica color transparencies, although some color engravers prefer to make a duplicate 5 x 7 enlarged color transparency from the original 35mm. slide. The duplicate will hardly be recognized from the original, such is the degree of clarity and sharpness that will be obtained.

There are three methods of making monochrome negatives from your color slides, each with a distinct advantage depending upon your particular requirements. The most convenient way is to use your Leica loaded with either Kodak Panatomic X or Ansco Supreme film, and the Elmar 90mm. or Hektor 135mm. long focus lens. Project the slide onto a screen in a totally darkened room, and, with the exposure meter, take a reading set at a rating of 5 Weston while facing the screen. Focus the camera (on tripod) using the Imarect Finder to frame the picture, and with the cable release make the necessary exposure. Generally, no filter is required, although if the overall contrast is high a green filter sometimes does improve the monochromatic rendering. If you do use this type filter, com-



The enlarged monochrome negative of this picture was made with a Leitz Model VIII S Projector, from the original Leica Kodachrome, onto 4" x 5" sheet film.

pensate for the tungsten light, as a longer exposure is required. Process the film in fine grain developer such as "Panthermic 777." When making a print from such a copy negative, you may have to tilt the enlarging easel to straighten out the angle (especially if a 50mm. lens was used). But if you wish to make a large negative, the best method is to use your Leitz Focomat enlarger. After placing the transparency on the carrier, (emulsion side up) put a piece of white paper, cut to film size (5" x 7" or 8" x 10") in the easel. Focus sharply, being sure to remove all dust spots from the slide. Close the lens down to F:5.6 (or to the No. 3 clickstop on the Leitz coated enlarging lens). Be sure to eliminate all stray light by covering the hood of the enlarger with a dark cloth. Place a piece of cut film in place of the paper, being certain that the operation is done in total darkness. I suggest using Triple SSS Pan Ansco, as it gives the required softness which is lacking in finer grain films. On this initial attempt, a two second exposure is suggested. Develop in 60 A, agitating the negative every two minutes. The resulting large size negative is ideal for retouching or mural enlargements.

The third copy method involves the use of a large white

Continued on page 32

BUBBLE TROUBLE

by Jacob Deschin, F.R.P.S., F.P.S.A.

Photographic Editor, NEW YORK TIMES

The presence of bubbles, or 'seeds,' in a high aperture lens is no cause for alarm. As a matter of fact, in high quality speed lenses, such as the Leitz Summarex, Summarit, and Summar lenses, a certain number of these bubbles will appear. No independent scientific authority will specify what a 'certain number' is—one lens may contain say, twenty-five minute bubbles, while another of similar type and manufacture may show three or four bubbles, each of about 1/100 inch diameter—yet both lenses will yield equally fine negatives. Practically every high quality lens contains bubbles.

In bemoaning the presence of bubbles in lenses, which too frequently becomes a matter of aesthetics rather than practical fault, photographers overlook the fact that bubble size and number must be considered in relation to the diameter of the lens. The larger the lens diameter the less will be the apparent effect of a given-size bubble. For example, it has been shown that a bubble 0.04 inch in diameter in a lens of one inch diameter will cut off less than two-tenths of one per cent of useful light. Furthermore, that sixteen bubbles of 0.01 inch diameter will have the same effect. Not enough to worry about, you must admit.

There are several types of glass sorts—silica and ordinary plate window glass that are entirely free from bubbles, but which cannot (because of their unsuitable optical properties) be used in the production of complex high aperture lenses. Molded blanks pressed from rolled plate glass are used for the relatively simple and cheaper lenses—always bubble-free but never classed as quality lenses—to be found on a wide range of medium priced cameras.

Proof of the relative unimportance of the 'bubble count' is the fact that lens-makers themselves give but casual attention to this matter when considering the suitability of a particular type of glass. They actually reject certain bubble-free glasses, which because of defects not visible to the untrained eye, will result in poor lens performance. The main criterion being: will the glass produce a lens that will do the job for which the lens was designed?

Professor Max Berek, world renowned optic specialist of E. Leitz, Inc., puts it this way: "All Leitz lenses are made from cut glass blocks, we check the bubbles and tensions; more rigid checking follows when the individual lens elements are made. We watch the shaping, grinding, polishing—and we especially check the assembling of the individual lens elements of the optical system. Although the lens might now have passed all the checks at the various stages of its construction, we still don't put it on sale; we first test it photographically, with critical test shots. The purchaser of a Leitz lens can therefore be sure that he gets a flawless lens in every single case. *But, be-*

cause of the special glasses we have to use, bubbles cannot be avoided. These bubbles, however, have no damaging effect on the lens and they have nothing to do with its correction; you may purchase a lens containing bubbles without having any misgivings about it."

Obviously then, the case against the lens bubble is ruled out on the simple ground that it will not stand up in actual photographic practice. No more than an unfounded prejudice, the bubble has become one of the most notorious of all photographic myths.

Perhaps an introduction into the causes of bubbles will help to eliminate this myth, and hence, put the photographer at ease:

Optical glass is manufactured by melting a mixture of several chemicals in a special pot heated to such a high temperature that the contents are liquefied and become merged. The result is a uniform transparent mass of molten glass.

In the course of the melting process, gases are produced which form bubbles. These bubbles rise to the surface when they become large enough, and soon get away. The smaller bubbles, however, since they lack the larger bubbles' advantages of size, weight, strength and buoyancy are not so fortunate. They have to work much harder to escape the molten glass.

The very smallest never get away and become locked in the glass unless they are forced out by a second and more intense 'heat treatment' called the 'fining' period. These bubbles become part of the lenses made from that particular portion of glass.

If one stops to consider the vastly greater importance of lens characteristics having to do with actual performance in the formation of a well-defined photographic image of high quality, then discussions of bubbles, which at worst merely block an infinitesimal amount of light, seem almost extraneous. Yet, unfortunately, it is true that photographers seem to be more concerned with this visible, though least noteworthy aspect of lens-making that relate to the efficiency of a lens in producing an image with the maximum of technical accuracy.

Bubbles are common to all high-quality lenses. Furthermore, it is of little consequence whether your lens has more, or fewer bubbles in it (within reason) than another lens you may compare with it. The bubbles are transparent and do not affect the clarity or sharpness of the image in the least. Except for an extremely minute loss of light, the image passes these bubbles practically without alteration, and with the same ease and directness as if the bubbles did not exist.

This unimportance of bubble-appearance in lenses cannot be overstressed. What is of prime concern in an ob-

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THE LEICA—A NEWS CAMERA

by Chris Butler

Former Chief Photographer for the STARS AND STRIPES



OUT ON HIS FEET. German youth at boxing match. This picture won the \$100 prize in the "I am proud of this picture" section of the November 13, 1948 issue of the *Saturday Evening Post*. Leica IIIc, 35mm., coated wide angle lens, 1/1000 sec. at F:3.5 using Kodak Super-XX film.

If I, as a professional news and magazine photographer, were asked to advise young people aiming at this field, I would confine it to three words—"Get a Leica!"

This blind faith in the Leica is not a haphazard thing, but obtained only after a considerable amount of comparison. Over a 12 year period, I have shot news pictures on every type of camera from a tiny Latvian-spy job to a 4 x 5 press type, including a 120 roll film box camera in an emergency. With my bread and butter depending on results, my decision to adopt the miniature was not hasty.

I finally 'changed cameras in the middle of the photographic stream' during the war years. Shortly after my arrival in England, I saw for the first time a majority of news photographers using miniatures, and although I was

a Leica owner, I had never considered it capable of news pictures—especially of a war type. The results these men obtained convinced me that the Leica should be given a thorough trial, and swapping the rigid 4 x 5 for the flexible miniature was like changing from a lumbering tank to the agile jeep.

During my stint with "Stars and Stripes," the Army newspaper, I became associated with Hans Huberman, the noted German photographer. My decision to use the Leica was greatly influenced by the results he obtained with it, his shots being some of the finest news and magazine pictures I have ever seen. Soon, I too was carrying my Leica on every assignment. On many occasions, the Leica with an F:2 lens was my only means of getting the picture.

One such assignment will always be vividly etched in my memory as to the capabilities of this miniature. I had flown to Coblenz to make aerial shots of a train wreck, and the constantly darkening sky indicated picture making was going to be difficult. My pilot flew our observation plane in tight circles around the haze and fog obscured area as I furiously tried to shoot the needed picture. A light meter reading indicated an exposure of 1/40th at F:2.2, but for a safety margin I used 1/30th at F:2. Most of the Leica shots were useable, but the 4 x 5 negatives, made with an F:4.7 lens, were too thin and all showed movement.

One of my greatest thrills from using the Leica came with a shot involving several hundred Jewish refugees who were forcibly debarked at Hamburg, Germany from the infamous "Exodus II" in September, 1947. The obtaining of this picture 'supposedly' was impossible because of the banning of all photographers by the British authorities. Two other photographers and myself picked up a tip that a demonstration was scheduled by the D.P.'s living in the old Belsen concentration camp. We evaded other newsmen and the authorities by concealing the miniatures in our coat pockets while we walked past them into the area. The deception worked perfectly, our shot of Britain's Bevin hanging in effigy 'scooping' all our competitors.

The dark, muggy days of the European winter make a fast lens indispensable for shooting outdoor sporting events. The Summarex F:1.5 was an extremely valuable

UP AND OVER. Motorcycle hill climb near Kansas City, Mo. Leica IIIc, 35mm., coated wide angle lens, 1/1000 sec. at F:4.5 using Kodak Super-XX film.



GERMAN TRAIN WRECK. Aerial view near Coblenz. Leica IIIc, Summar 50mm., coated lens, 1/30 sec. at F:2 using Kodak Super-XX film.

objective for this work, alternating with the 90mm. Elmar on sunny days. I constantly used Super-XX film with the Dr. Sease No. 3 developer.

For magazine work, the Leica is the only camera which can, in my opinion, fulfill all the requirements. Working in close quarters and under poor light conditions, the Leica still comes up with excellent results. The Leica's versatility was vividly demonstrated by one day's work I did in Frankfort. I photographed soldiers, took pictures inside a barter market with normal room light, and used the rotating stage copying device to make macrophotographs of penicillin at a nearby chemical factory. All the shots were made with the same camera and the results were first-rate.

Since returning to the United States, my two Leicas have been the mainstay in earning my living. I have been kept busy freelancing features and pictures for metropolitan newspapers and for several national magazines, and I can truthfully say that I could not do as well with any other camera.

The miniature camera *can* be used for news, features and magazine photography, and I am proving it every day. Photographers struggling under the weight of 4 x 5 press cameras still give me a skeptical glance when they see my handful of equipment. The skepticism disappears, however, when they see the quality of the work turned out by the ever-versatile Leica. It is no wonder that my repeated advice to the would-be press photographer is—"Get a Leica"!

MEMORIES OF OSKAR BARNACK

by Ernst Leitz, Jr., Wetzlar

Translated by Harold Low, New York



The medallion of Oskar Barnack was so close a resemblance that friends of the inventor were amazed at the lifelike quality of the replica. They were even more amazed when told that the American artist, Jeno Jesvko, had never seen Barnack, but had worked from three Leica self-portraits.

Forty years ago it was customary for a young mechanic to 'hit the road' for a few years in order to widen his horizon. It was in Jena that Oskar Barnack of Berlin and Emil Mechau of Liebenwerda first met. They say that opposites attract, and such was the case with these two young men. Mechau: self-confident, enthusiastic, impulsive, exuberant and bubbling over with plans for the future. Barnack: quiet, reserved, calm and of delicate health. A music lover and a master of the chess board. The contrast was striking—and perhaps this was the bond that drew them together. This, and their love for the enchanting field of optics.

The people in Jena were working on a movie projector which would run smoothly, without using an intermittent motion or shutter mechanism—the theory being that it was possible to 'fix' the individual frames on the screen by optical means. The task was without question one of the most difficult known in optics and precision mechanics, and for years to come scores of inventors were working on this theory.

Mechau's work and his ideas met with a cool reception from his superiors. (Who knows, perhaps they were not even understood.) Looking for an outlet for his agile brain, he remembered a conversation about Leitz. Their independence and the possible reception which his work

would receive appealed to him. And so Mechau turned to Wetzlar. In answer to his query if Leitz would be willing to give him a chance to develop a movie projector with an optical differential, the answer was yes; and a few years later the first Mechau-Projector was operating in the Wetzlar cinema.

The need for a new foreman for the experimental department for microscopy brought Oskar Barnack from Jena. Here was the man we wanted; to get him was another question. Mechau recommended his friend, but Barnack in his own opinion was too modest to develop his talents at our expense. My father, Ernst Leitz, approached Barnack who replied in the negative by means of a letter to Mechau. This letter more than gave the reasons why he could not accept the position—it revealed the true character of the man who later was to make optical history. In his answer of July 11, 1910, he writes:

'It can not be agreeable for a business firm if a young employee, while adjusting himself to work in a new field, has to be excused from work one to two months a year for reasons of health. Quite besides, I could not afford a cure as a private individual.'

However, Mechau succeeded in calming his fears, and Oskar Barnack came to Wetzlar.

Similar in nature to my grandfather, it was not long before they became more than business associates. The first question to be solved was Barnack's health, and with the older man's help, he acquired a small cottage. The location appealed to him, and many happy hours were spent in the cherry garden and on the glass veranda.

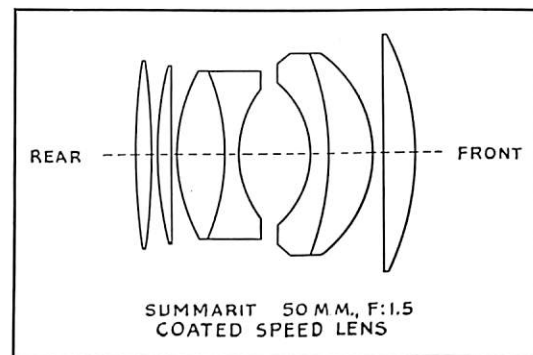
In his spare time, the new foreman tried his hand at developing a movie camera. A successful model was made, and many an event in the life of the little town was recorded with it. Once it was a fire, then Wetzlar's popular festival, the County Fair, and later a flood.

Barnack was more than just an experimenter, his scenes being equal to any newsreel reporter. But one phototechnical problem bothered him—how to find the correct exposure time? He conceived the idea of developing a small still camera for movie film as an aid to helping him solve this problem. With it he could first make a few test exposures right on the spot. The idea was carried out—and thus the original Leica was born.

Not wanting to miss anything that was worthwhile filming, Barnack took to traveling around the neighboring area. And when Count Zeppelin with one of his first dirigibles made a landing at nearby Geissen, Barnack could not rest until he was permitted to go aloft with his equipment. Thus the first movie film 'from above' was shot. Although none of this film has been preserved, we still have one of the test shots which he made with his small 'exposure' camera. Sharply drawn, the shadow of the Zeppelin 'cigar' stands out from the landscape. Only

Continued on page 35

THE NEW LEITZ SUMMARIT 50mm. F:1.5 COATED SPEED LENS



This new high aperture lens of 1.5 is a welcome addition to the comprehensive range of Leica objectives. Approximately double the speed of the famous Summarit, its main application will be for photography under the most difficult lighting conditions: i.e., circuses, horseshows, ice shows, theatres, or any other indoor event where supplementary flash lighting may be prohibited. In addition, portrait photographers will find the focal length of 50mm., plus the high speed of the Summarit lens, of great advantage for child photography in the studio where shutter speeds as high as 1/60th of a second are required to 'freeze' movement. While many beautiful photographs can be taken in artificial light with the F:2 Summarit, it remains for the new Summarit F:1.5 to widen the possibilities for the ultimate in photography.

It is not only the wide aperture which makes the Summarit lens of outstanding interest. It must be stressed that the new lens gives a magnificent sharpness over the entire field when working at full aperture. When we say magnificent sharpness, we mean for this class of lens, we do not mean to indicate that its results at F:1.5 can be compared with those of the Elmar 50mm. lens at F:3.5.

The definition of the Summarit lens improves further on stopping down; in other words, it is not computed so that its best achievement is only at F:1.5. This fact makes the objective more useful than it would otherwise be, for it can be used for all-round photographic purposes to the best advantage. The light distribution of the F:1.5 lens is remarkable even at full aperture, and the objective possesses a freedom from distortion which has not previously been achieved with a lens of such speed.

The Summarit lens couples with the rangefinder in the same way as the other Leitz objectives, and can be focused either with the knob which arrests at infinity, or by rotating the knurled grip on the lens barrel. Its focusing mount is rectilinear—the lens itself does not rotate during focusing. Because of its great light transmitting capacity the lens has a larger diameter than other 50mm. lenses, and therefore is not collapsible. A special lenshood of the collapsible type is in the course of preparation, but cannot as yet be supplied.

The Summarit lens cannot be used (if only for mechanical reasons) for enlarging. Due to its large diameter it cannot be screwed into the Focomat enlarger. It may, however, be employed for projection—especially for color pictures. But it is never advisable to stop down wide aperture lenses for projection, as the lamellae of the iris diaphragm will absorb heat and cause internal condensation.

We have used one of the first Summarit lenses to arrive in New York for a wide range of photographic assignments, on both color and monochrome film, in a variety of lighting situations, and have found the 'modeling' and definition to be superb. The use of this objective has moved the impossible into the realm of every-day-photography.

Retailing at \$280.00, inclusive of Federal Excise Tax, we suggest that you contact your Leica Franchised Dealer rather than E. Leitz, Inc. This is necessary because of the quality production control on the Summarit lens which in turn restricts shipments. Therefore, equitable distribution will be made by us to our franchised dealers.

QUESTIONS AND ANSWERS

These questions and answers have appeared most frequently among recent correspondence with Leica Camera owners. Selections of other 'teasers' will appear in future issues.

HOW SHOULD I STORE MY BEST NEGATIVES?

To avoid scratched negatives and to prevent difficulty and unnecessary retouching on the prints, it is always advisable to harden the film before storage. This applies especially to negatives which are stored in rolls, since the risk of scratching is considerably greater than on those which are cut into small strips and filed in transparent envelopes. The use of a strong fixing and hardening bath offers some safeguard. Albums and wallets are quite satisfactory for normal purposes; but if there is a negative of more than ordinary value, it is best to mount it in the middle of two glass plates measuring $4\frac{3}{4} \times 1\frac{1}{2}$ inches and bind these together with the special material provided for it.

Special care must be taken that a Newton ring does not arise during mounting, and it may be advisable to cut a thin frame of cellophane to be mounted with the negative to prevent it from touching the glass with the celluloid side.

IS RAPID DEVELOPMENT RISKY?

When the time of development must be short, and when working with the Correx tank, it is advisable not to pour out the developer with the light on through the spout provided, as it takes too long. It is better to take the lid off the tank in darkness and pour out the developer in a dish. Then rinse the tank quickly with water under the tap and pour in the fixer, also with the lid off. The procedure is quicker and ensures more accuracy in the timing of the development.

It is still better to work with at least two Correx tanks, taking out the reel on completion of the time allowed for development. Wash it immediately in a deep dish with water, and insert it into the second Correx tank prepared with the fixer.

HOW CAN I USE THE MIRROR REFLEX HOUSING IN DULL LIGHT?

Some have difficulty in focusing the Telyt accurately with the reflex arrangement. When working on a tripod, the 30X magnifier provided with it renders good service, but it is important that the magnifier should first be focused on the cross lines on the clear portion of the ground-glass screen, after which the image on the cross lines must simultaneously appear sharp when the lens is focused. Those with experience in photomicrography will know that another check for the focus consists in moving the eye sideways above the magnifier. The image must then maintain its position relative to the cross lines. This is a very reliable check of the focus.

CAN THE 30X MAGNIFIER BE USED ON THE REFLEX HOUSING?

In cases where 30X magnifier is brought into use for critical focusing on the clear glass spot of the rotating stage plate or the Telyt reflex housing, it is essential that the magnifier first be focused on the crosslines with which the clear spot is engraved. This ensures that the aerial image will be focused in the proper plane. Failure to make the initial adjustment may lead to a false setting of the focusing mount.

HOW SHOULD I CLEAN A RANGEFINDER?

FOFER and FOKOS rangefinders, sent in to our repair department with the complaint that "one of the images is too faint," have generally betrayed an attempt on the part of an unauthorized person to 'clean' the interior reflector. The fine surface silvering of this mirror will be removed from the glass if rubbed, necessitating a replacement. If dirt is suspected inside a rangefinder, it is advisable that the instrument should be returned to us for cleaning.

WHAT IS THE FILM MAGAZINE FOR?

The film normally sold packed in a carton is simply a length of film with its outer end pointed for attaching to the spool of a cassette, and its inner end trimmed to the standard loading shape used in the Leica. To load your magazine, you have to attach the outer end of the roll of film to your spool in the dark, roll the film on to the center spool, put it into the magazine, and close the latter. We suggest you try to obtain a short length of 'dud' film from a friendly dealer in order that you may practice a little before you try to load your first film in complete darkness. A complete description and illustration of the film magazine appears in the Spring, 1949 issue of LEICA PHOTOGRAPHY.



DEMAND A Selectroslide

It's more fun to show slides with Selectroslide, for you merely push a button and slides change, automatically. 48 Slide Magazine can be instantly interchanged. For the best in slide projectors, it's the completely automatic Selectroslide, with remote control.

Selectroslide available with the new 25th Anniversary 1000-watt projector, or Special 300-watt projector. Changing unit can be attached to Leitz VIII-S projector without alteration. Leica camera and Leitz projection lenses can be used on the Selectroslide.

For a demonstration, see your authorized Leica dealer

SPINDLER & SAUPPE

2201 BEVERLY BLVD.
LOS ANGELES 4, CALIF.



*This signature appears on all
Leica picture pages in the
“NASHVILLE TENNESSEAN” and can
be seen on the left-hand edge of
the page-reproduction opposite.*

LEICA SEQUENCE STORY

by Robert C. Holt, Jr.

Chief Photographer, THE NASHVILLE TENNESSEAN

In the "Nashville Tennessean's" quest for more thorough pictorial coverage of the various college football games, the subject of football sequence pictures came up.

"In addition to the sideline stuff, I'd like to see some sequence shots this year on the Vanderbilt games . . ." so said Sports Editor Raymond Johnson, in the Spring of 1947. This started the search for equipment capable of making pictures from high above the playing field in the press box.

Several large newspapers were using the sequence pictures, and after visiting several of them we found that adapted 35mm. movie cameras with long focal length lenses were used almost exclusively for this work.

With this gear, editing alone is an enormous job, requiring special equipment; furthermore, because the frame of the movie camera is only half Leica size there is a loss of quality in the prints made from individual movie frames.

We found the same to be true with the 4" x 5" type cam-

eras—a bulky machine which when fitted with the proper focal length lens required 50 foot rolls of film to be processed.

Then Don Cravens, of the "Tennessean Magazine" photographic staff, and I hit upon the idea of putting a Leica camera to work. We fitted it with a 300mm. Astro lens, loaded a couple of Leica cassettes, attached a Leica motor, and headed for the press box to give it a try.

The big problem was how to focus the Astro lens, no provision being made for range finding. This was solved by measuring the cardinal points on the field from the press box and then changing the focus of the lens according to the play. The results with the Astro lens were good, but not as good as we had hoped.

Then this year Vanderbilt U. enlarged its stadium, moving the press box further back and higher up. The Astro was too short a focal length at this greater distance.

We bought a 400mm. Leitz Telyt lens and it filled the bill perfectly. The Reflex Housing on the Telyt enabled us to focus at any time, and the quality of our negatives improved 100 per cent. We shipped the lens to Mr. O. G. Heinemann, of New York, for the fitting of a special horizontal view finder—used in tracking the plays. The shutter speeds used varied according to the light conditions: in full sunlight we shot at 1/1000th of a second at F:8 on Kodak Super XX film.

We think the pictures on the opposite page are pretty hard to beat.

The processing is down to a fine point. We develop the 36 exposure rolls in Microdol, wipe the negatives dry with a sponge and dry the film in a cabinet which we designed.

As soon as the film is dry the editor takes his caption list of each play photographed, puts each roll through a "Kodagraph" film reader, and selects the negatives he wants printed by the frame numbers. The "Kodagraph" machine isn't essential, but since we use it for reading microfilmed newspapers, it comes in handy for film editing.

With the rapid negative carrier on the enlarger, and all the negatives of the same contrast, it is a simple printing job. Within a few hours after the game the artist is making up the strips for Sunday morning's paper.

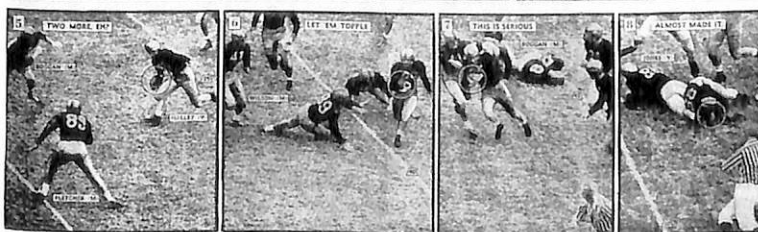
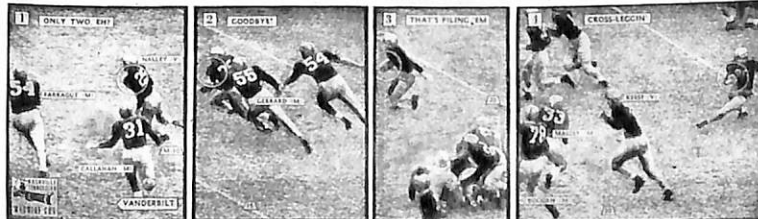
Big Dean Davidson's Pile-Driving Scores First for Commodores Against Rebels



Jamie Wade's Touchdown Pitch to Herb Rich Provided Vandy's Victory Margin



Machinegun Camera Caught Nalley's Runback That Inspired Vandy's Scoring



Leica Christmas Legend

Once upon a time, hard by the River Lahn, there was born a magic camera. As it left the production line at midnight on Halloween, the fairies rightly considered it to be theirs, and they endowed it with a magical gift—that of perfect composition, so that every picture it took would be a masterpiece.

Before leaving the plant it was carefully packed in a box, lined with red velvet, which bore in gold letters the already magical name, LEICA. It was flown with many thousands of its kind to a strange land called America. There it was inspected, checked and re-checked by wise men who spoke only in codewords—like DAMOT, ELFOR, NOOKY—which sound naughty but aren't really. A few weeks before Christmas, our magic Leica,

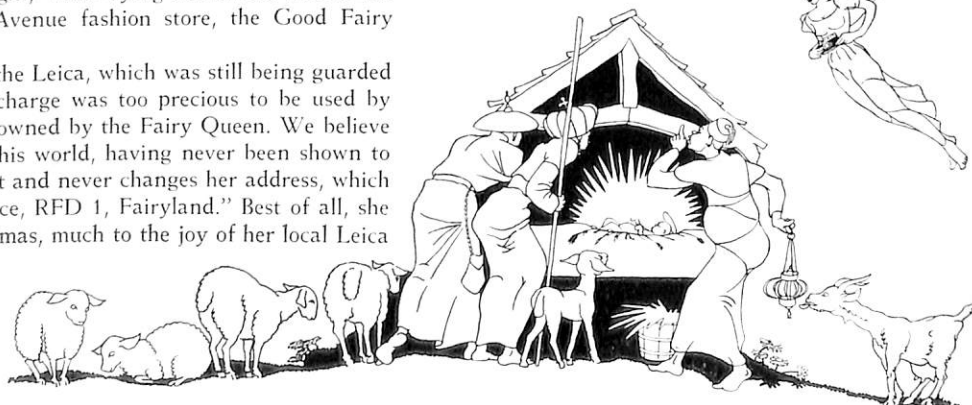
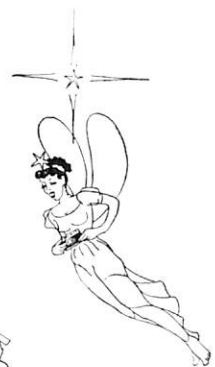
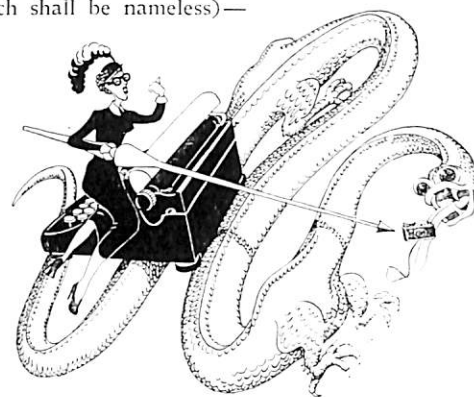
with forty-nine sleek companions, was despatched by special messenger to a store (which shall be nameless)—known by photographic folk as the Largest One In The World. There it was put on Christmas display by a Leica specialist, but little did he know that he was handling the chosen instrument of the Fairy Folk. The very next minute, in walked a Lady Columnist who knew EVERYTHING about photography, 'tho she didn't believe in Miniatures. But the good Fairy, who was watching over her magical charge, thought "Now, here is a Lady who will appreciate my Wonderful Camera." And the magic worked (it was so near Christmas) and the Lady Columnist actually bought the Magical Leica. Standing on the curb outside the store, the Lady waved, and a taxi stopped for her immediately, (this is a fairy story, don't forget) and she was home almost as fast as if she had ridden the subway. That night, she started to read a book of knowledge called the "Leica Manual," and was asleep before she knew it.

On Christmas Day, the Magical Leica was loaded with film, nothing else, and the Lady spent all day in the country shooting pictures. Back home again, she took her precious FILCA cassette into the darkroom, processed the film and lo, there was a perfect roll of 36 magnificent negatives ready for enlarging! But after making prints, the Personality was horrified. Had she really made these pictures?—why, the composition was crazy, unbalanced!! So back to the store went the Magic Leica.

The next owner was a news photographer who specialized in football events. He had heard that a Southern paper was using Leica equipment, and thought "What's done in Tennessee will be done twice as good by me." But he did not keep his Leica for long, because the players in his shots looked like ballet dancers, beautifully poised and graceful. No Editor would accept his stuff, so back on the shelf went the Magic Leica. It remained but a few days in stock, and was bought this time by a humble amateur in Search of True Joy. He read his instruction book from cover to cover, loaded the Leica with the greatest of ease, at first kept the shutter at only one speed of 1/100 second and only varied the lens opening between F:6.3 and F:4.5 according to a simple exposure guide. For many months this sincere amateur was delighted, his travel shots pleased him, his family portraits were a joy to behold. And then he got ambitious and entered a big, beautiful 20" x 30" aerial picture (enlarged, of course, with the Focomat) in his club exhibition. You have guessed the judge—our Lady Columnist! She looked at the *back* of the picture first, and read the technical data "—made with a Leica IIIc—." The beautiful picture was thrown out—bingo—with the comment "Just another miniature shot, can't do good work with such equipment!"

The sorrowful amateur began to lose faith in his photography, even though the Good Fairy saw to it that he got every issue of "Leica Photography" without even registering or notifying anyone of seven changes of address in one year—he being a Freight Air Line Pilot. He became quite disinterested in his Leica and left it in a locker on the plane for weeks at a time. One night, while flying homeward with a full load of Christmas novelties for a Fifth Avenue fashion store, the Good Fairy deserted him.

Among the survivors of the crash was the Leica, which was still being guarded by the Good Fairy. She decided that her charge was too precious to be used by Human Hands. Now the Magical Leica is owned by the Fairy Queen. We believe that all her Leica pictures are just out of this world, having never been shown to Ordinary Mortals. She is a model registrant and never changes her address, which for years has been simply—"Titania's Palace, RFD 1, Fairyland." Best of all, she buys everything in the catalog every Christmas, much to the joy of her local Leica Franchised Dealer. She has the finest collection of bubbles in lenses, (made from dewdrops picked each Christmas morn) and she believes *everything* she reads in "Leica Photography"!!





CHRISTMAS ANGEL
By Ilse Bing



NIGHT ON MONTMARTRE
By Peter Anders



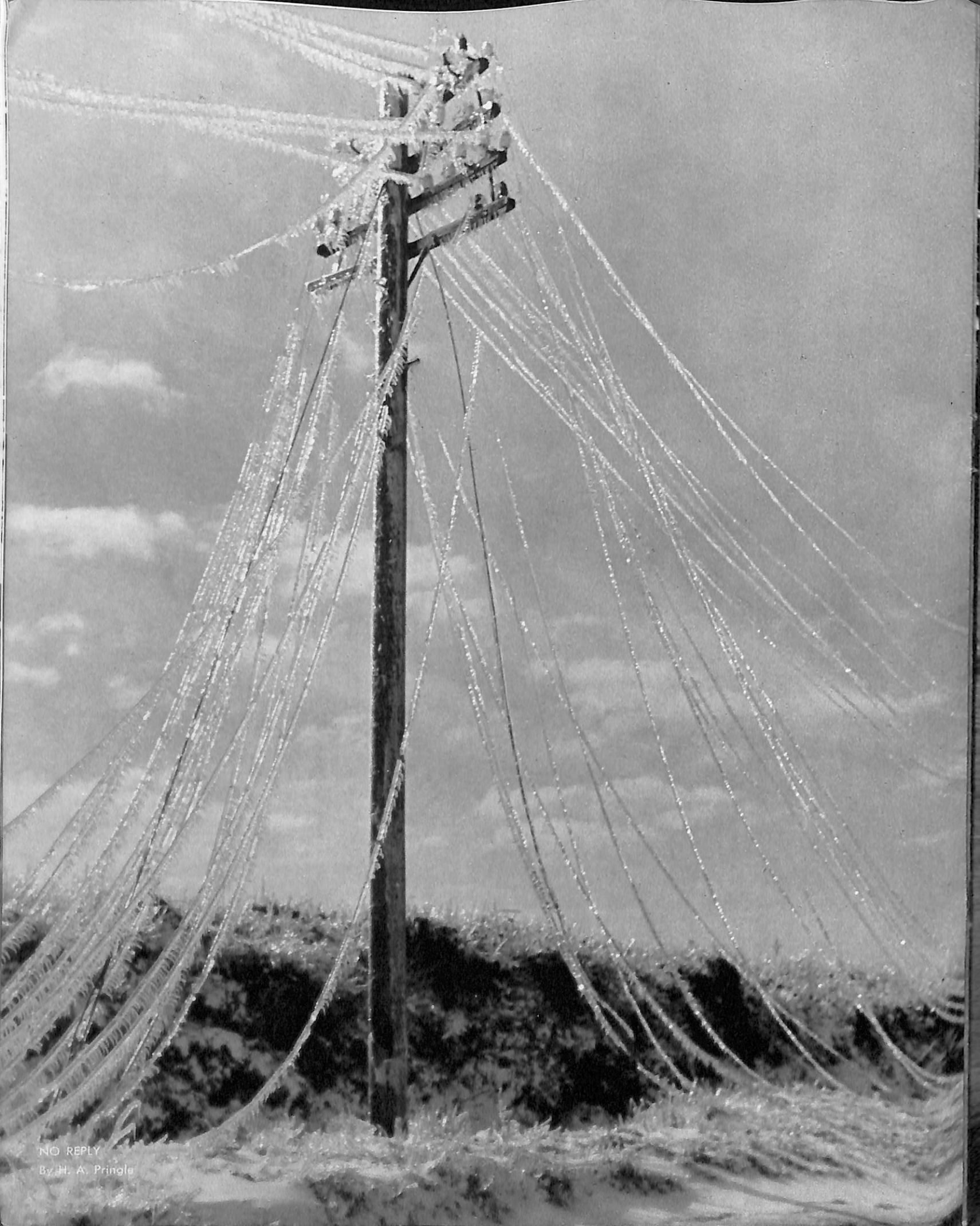
MORNING IN WESTMINSTER
By T. Benedict



LAURIE
By Will Rapport



FINE N' DANDY
By C. H. Vickery



NO REPLY

By H. A. Pringle



LINES OPEN
By R. S. Staples



A WINTER EVE
By Ralph A. Hamman

NOTES AND TIPS

PRIZE WINNERS OF FINAL LEICA COMPETITION . . . Listed below are the 20 prize winners of the third section of the Leica Competition. There were no restrictions as to subject matter, and both black and white prints and color transparencies were permitted. Contestants took full advantage of this, and the subjects ranged from tumor operations to nudes. As a result, we never knew quite what to expect, and when it was all over, we knew that here was proof of the versatility of the Leica camera.

1. Howard E. Foote
722 W. 168th Street
New York, N. Y.
"BETTA FISH"
Leica Camera, IIIc, on the Focslide; with 90mm. F:4.5 coated lens; Press 40 Bulb in Leitz Synchronized Flash Unit, Model VIIla, at 1/40 second at F:18; Kodachrome Film.
2. Louise S. Smith
108 N. E. 13th Street
Delray Beach, Fla.
"MACBETH"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 2 seconds. Stage Lights; Kodachrome Film.
3. Dr. George M. Benko
97 Amboy Avenue
Perth Amboy, N. J.
"REMOVAL OF BONE TUMOR"
Leica Camera, IIIb, with Hektor 135mm., F:4.5 coated lens on Mirror Reflex Housing with Extension Tubes, 1/20 second at F:18; Kodachrome 'A' Film, Tungsten Illumination.
4. Helen C. Manzer, A.P.S.A.
10 Sheridan Square
New York 14, N. Y.
"ESTECH-MEXICO"
Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens, 1/100 second at F:6.3 using reflectors; Kodachrome Film.
5. C. H. Vickery
281 Holmes Road
Pittsfield, Mass.
"FINE AND DANDY"
Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens, 1/40 second at F:6.3. Studio Lighting; Kodak Super X Plus Film, Meritol-Metol Developer
6. Ralph G. Morrissey
2305 Pierce Avenue
Nashville 5, Tenn.
"HAY HAY!"
Leica Camera, IIIc, with Elmar 50mm., F:3.5 coated lens; one 6 A Bulb in Leitz Synchronized Flash Unit, Model VIIla, at 1/60 second at F:8. Kodachrome Film.
7. William H. Christie
625 Allwood Avenue
Clifton, N. J.
"BEACH PEACH"
Leica Camera, IIIb, with Summar 50mm., F:2 lens, 1/100 second at F:6.3; Ansco color Film.
8. Roy A. Whipple
170 Woodland Avenue
Winnetka, Illinois
"DOUBLE 'O' ARCH"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/60 second at F:8; Kodachrome Film.
9. Elmer L. Onstott
5480 Claxton Avenue
St. Louis 20, Mo.
"COOPERATION"
Leica Camera, IIIb, with Elmar 90mm., F:4 coated lens, 1/200 second at F:6.3 Ansco Finopan Film.
10. Russell E. Grey
12922 Forrer Avenue
Detroit 27, Mich.
"MARY LOU"
Leica Camera, IIIc, with Elmar 50mm., F:3.5 coated lens, 1/100 second at F:5.6; Kodak Plus-X Film, F. R. Developer.
11. M. Ress
15 Elliot Place
New York, N. Y.
"THE LANTERN"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/60 second at F:6.3; Kodachrome Film.
12. Ralph A. Hamman
105 W. Main Street
North Adams, Mass.
"A WINTER EVE"
Leica Camera, IIIb, with Elmar 50mm., F:3.5 coated lens, 1/20 second at F:9; Leitz No. 2 Yellow Filter; Kodak Panatomic-X Film, Edwal-20 Developer.
13. A. W. Gauer
Kensington,
Connecticut
"CIRCUS DAY"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/60 second at F:8; Kodachrome Film.
14. Peter Anders
2630 North Beach Drive
Seattle 7, Wash.
"NIGHT ON MONTMARTRE"
Leica Camera, IIIb, with Summar 50mm., F:2 coated lens, 1/40 second at F:3.5; Superpan Supreme Film, Ansco 17 Developer.
15. Jay Risling
722 Montgomery Street
San Francisco, Calif.
"ART SHOW"
Leica Camera, IIIb, with Elmar 50mm., F:3.5 coated lens, 1/100 second at F:6.3; Ansco Supreme Film, Finex Developer.
16. Dr. Donald J. Lyle
601 Union Trust Bldg.
Cincinnati, Ohio
"OCULAR ALLERGY"
Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens on Mirror Reflex Housing; 1/2 second at F:5.6; Kodachrome 'A' Film.
17. Ernest Miller
45 Colonial Court
Staten Island 10, N. Y.
"DESIGN IN STEEL"
Leica Camera, IIIb, with Summar 50mm., F:2 coated lens, 1/30 second at F:9; Kodachrome Film.
18. G. C. Lynde
2700 Boston Road
Muskogee, Okla.
"OSSIAN HALL"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/60 second at F:5.6; Kodachrome Film.
19. John de la Montagne
1316 Iverson Street
Laramie, Wyoming
"SPRING IS COMING"
Leica Camera, IIIc, with Elmar 50mm., F:3.5 coated lens, 1/60 second at F:8; Kodachrome Film.
20. Herman C. Bremer
355 E. 88th Street
New York 28, N. Y.
"SUNSET"
Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/30 second at F:2.2; Kodachrome Film.

NOTES AND TIPS

ABOUT YOUR PICTURES . . . The picture "EARLY BIRD," which was reproduced in the gravure section of the Fall edition, was the prize winner of Emily Goode of Sharon, Mass. When informed of the award, Miss Goode had this to say:

"How can I tell you of my delight and pride when I saw my prize winning picture so beautifully reproduced in the fall issue of LEICA PHOTOGRAPHY!

The two bird pictures I entered in the contest were the *first* I took with my Hektor 135mm. lens, which proves there is no guesswork in using fine Leica equipment.

Until I studied the pictures in the salon section of your fall issue, I had believed the people who say no one camera can do everything. You certainly have convinced me that the Leica, with its many accessories, can satisfy any photographic need. I have greedily checked a dozen items in your catalog that I hope to own some day.

My third prize—the 90mm. lens—arrived last night. Of course I was very pleased to receive it, though I cannot conceive of any lens doing a better job than my Hektor."

TRYING TO GET VARIETY . . . (with a Christmassy touch) into our salon section, was not as difficult as it may seem—we merely went to the selections from our contestants. The results:

Christmas Fairy — By Ilse Bing, New York

Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens, 1/30 second at F:12.5, "Reevelec" lamp; Kodak Plus X Film.

Night on Montmartre — By Peter Anders, Washington

Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/40 second at F:3.5; Superpan Supreme Film, Ansco 17 Developer.

Morning in Westminster — By T. Benedict, Calif.

Leica IIIc, with Summar 50mm., F:2 coated lens, 1/40 second at F:3.5, Dupont Superior #2 Film, Meritol-Caustic.

Laurie — By W. Rapport, Mass.

Leica IIIc, with Summar 50mm., F:2 coated lens, 1/60 second at F:8, Kodak Super-XX Film, Microdol Developer.

Fine and Dandy — By C. H. Vickery, Mass.

Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens, 1/40 second at F:6.3, Studio Lighting; Kodak Super X Plus Film, Meritol-Metol Developer.

No Reply — By H. A. Pringle, Devon, England

Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/100 second at F:3.5; Ilford F.P.3 Film, developed in "A" of Leitz two bath developer in 6 minutes at 65°.

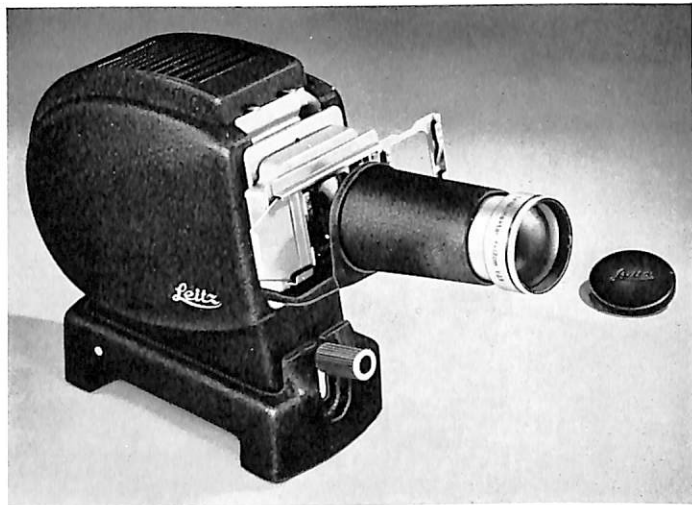
Lines Open — By R. S. Staples, Calif.

Leica Camera, IIIc, with Summar 50mm., F:2 coated lens, 1/200 second at F:9; Kodak Pan-X Film, Leitz 2x Yellow Filter.

A Winter Eve — By R. A. Hamman, Mass.

Leica Camera, IIIb, with Elmar 50mm., F:3.5 coated lens, 1/20 second at F:9; Leitz 2x Yellow Filter; Kodak Panatomic-X Film, Edwal-20 Developer.

WATCH FOR THE NEW LEITZ PROJECTORS . . . The first post-war shipment of new Leitz Projectors is expected to arrive within the next month or so. The new PARVO II, shown here, is of entirely new design, accepting 2 x 2 slides, or 35mm. strip roll film in an accessory holder.



This latest projector throws an extremely brilliant image through a coated, long focus, high aperture Hektor F:2.5 lens. The PARVO II can be supplied with either a 100mm. lens at \$110.00 or a 120mm. lens at \$120.00, inclusive of Federal Excise Tax. The slide changer comes with the projector, but the special roll film holder is a separate accessory.

The features which made the Leitz VIIIs Projector famous are retained in the latest post-war model — interchangeable projection lenses and condensers, the standard lens flange in which any Leica Camera lens may be used for projection, four-way adjustment of the lamp, and built-in tilt. Additionally, specialized accessories, such as the micro-projection lens attachment, extend the application of the VIIIs Projector into the field of visual education.

The price of the Leitz VIIIs Projector complete with interchangeable condensers and slide changer, but without projection lens or roll film holder will be \$110.00, inclusive of Federal Excise Tax. The availability and prices of accessory equipment will be announced at a later date.

LEADS ON LEADERS. We reiterate this old tip with profound sorrow—always wind a completely exposed film all the way into your film chamber. Don't leave the film leader sticking out—wind it in, so that you can't use it again.

The reason for our sorrow is that on a recent assignment we didn't follow our own advice, and exposed the same color film twice. This is the first (and we sincerely hope the last) time we have made this moronic mistake during more than twenty years of Leica Photography.

LEICA MOTORS . . . To clear confusion concerning the supply position of the Leica Motor, here are the facts. No new Leica Motors have been produced for either the range of post-war "C" (long baseplate) models of the Leica Camera, or the pre-war models. When the new post-war Leica Motors do arrive, they will fit only the current Leica Cameras, because of the modification in the design of "dog" of their take-up spindles. Therefore, any Leica Motor offered for sale by anyone today is second-hand, and will *not* fit the new IIIc, IIc or Ic Leica Cameras. Owing to a complete lack of essential spare parts for the pre-war motors, our Service Division regrets that they are unable to repair any damaged units at this time.

Profund Ditty

James Joyce's words are similar to the codes of Doctor Leitz, Like Ploot, Bazoo and Summitar, mein Aktoo Ahpoo—undt Arbeits!

Elang along with Eldia,
Winko Filso my Lydia,
Aboozium!

LEICA GETS AROUND . . . Somehow the versatile Leica keeps popping up where you'd least expect it. This time in the hands of an enchanted traveler in the Vista-Dome of the California Zephyr, shown on a full page of color in the November issue of *Holiday*. The happy individual snapping pictures 'tells' us he is using a Leica IIIc, by the orange filter for the range finder, (OKARO) and by the Eveready carrying case.

Incidentally, on a recent trip from San Francisco to Chicago in the same Vista-Dome coach we discovered a few photographic tips. The heat resisting glass panelling of the dome itself has a slight bluish cast, and has a rather similar effect on film (particularly color film) as a Polaroid filter. Therefore, we increased our exposure factor for Kodachrome between two and three times, according to the lighting conditions. When the train itself was in full sunlight, shooting from the dome was difficult owing to internal reflections on the inside surface of the curved glass panels.

Conditions were good in certain stretches of the Feather and Colorado Rivers, where the train obligingly teetered along the shadow side of these magnificent Canyons, and the bothersome reflections disappeared. When the sun struck the dome at an oblique angle, the outside dust spots appeared to be as large as pebbles—this lighting condition invariably occurred at the most photogenic spots. Next time we make the trip, we are looking forward to stopping the train every few minutes, come what may!

METERS TO FEET . . . It is now possible to convert the focusing scale ring on the F:3.5 Elmar 50mm. lens from meters to feet. The charge for this modification is \$20.00. Packages should be forwarded through your Leica Dealer, and addressed to: Repair Department, E. Leitz, Inc.

NOTES AND TIPS

ONE PICTURE IS WORTH A THOUSAND WORDS . . . the oft quoted Chinese proverb is perhaps the basis of visual education. Fact displaces theory in the educational world; the written word takes a back seat to pictures in imparting knowledge. The photographic essay is imprinted in the mind with a "staying power" far superior to that of the speaker's lecture or the author's message. *Life Magazine* has built its popularity on this fact, and its overall acceptance by the layman, the student, the educator has only served to emphasize the true worth of a picture.

The editors of *Life* realizing this fact, have gone a step further in this field of visual education, and have produced a series of filmstrips designed as an aid to those interested in studying the cultural heritage of our times. Ranging in subject matter to a study of The Atom to a survey of the Middle Ages, these lectures are the result of what the best photographic equipment and literary minds can produce.

Life (i.e. education) has E. Leitz to thank for this study, for it was in 1926 that the idea of a 2 x 2 slide for projection was evolved. The majority of the equipment used in this field today (especially by *Life*, *National Geographic*, and the Sawyer "Viewmaster" Company) bears the name Leica or is a development of some principle originated in Wetzlar.

Exclusive
HABER & FINK
VALUE!



Front View



Back View

LEICA TURRET OUTFIT

Now you can change from long-focus lens to wide angle lens to normal lens with a flip of a button and a twist of the wrist! The H. F. Turret does away with unscrewing and removing lenses. Saves time, saves trouble, saves wear and tear on valuable lenses! Weight of attachment 4 oz.

Attached to Your Leica \$75

The Complete Outfit: \$559.50—Here's What You Get:

<ul style="list-style-type: none"> • Leica G • Sunshade • 90mm. Leitz Elmar f.4 long-focus lens • 50mm. Summitar f.2 coated, combination shade 	<ul style="list-style-type: none"> • 35mm. wide angle Elmar f.3.5 • Imarrect Finder • H. F. Turret
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WE CAN CONVERT YOUR LEICA TO ACCEPT THE TURRET AND HAVE EASE IN CHANGING FROM LENS TO LENS.

Mail Orders Promptly Filled Dept. L. P.

Buy with Confidence

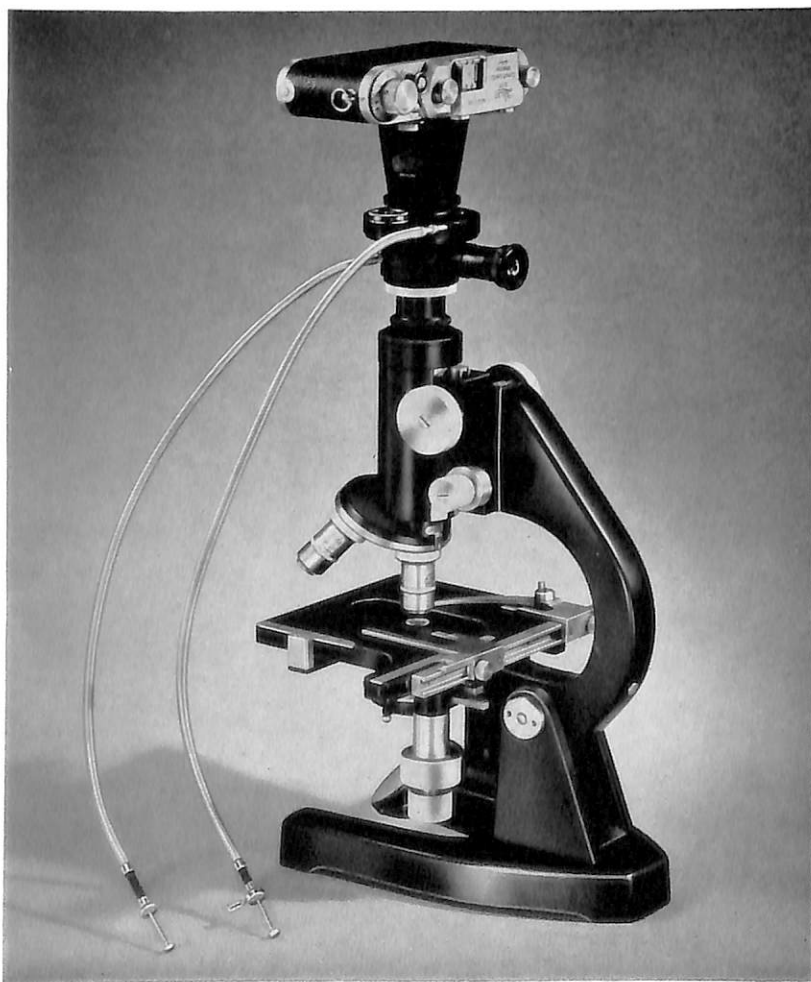

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 12 WARREN ST. • NEW YORK 7, N. Y.
 One of America's Great Camera Stores BARclay 7-1230

PHOTOMICROGRAPHY WITH THE LEICA

For quick and accurate photomicrography, the Leitz Micro-Ibso Attachment can be used with any microscope of standard make, a good microscope lamp and the Leica Camera.

The Micro-Ibso Attachment consists of a 10X Periplanatic (compensating) eyepiece, a main housing with built-in shutter, and a lateral viewing telescope. A conical extension tube with an achromatic lens system and two cable releases is set above the shutter.

A semi-silvered beam-splitting prism, designed to reflect 40 per cent of the light into the lateral viewing telescope is mounted in the main housing. The balance passes directly through the eyepiece to the camera. The telescope is focused by a network of cross hairs visible in the lateral viewing telescope, and which also frames the area of the field of view. The exposure is made when the telescope has been properly focused on the cross hairs, and the specimen has been aligned by means of the coarse and fine adjustment of the microscope itself. Two cable releases are provided—one to actuate the shutter, and the other the prism. The prism, therefore, can be thrown out of the path of the rays so that all of the intensity of light passes through to the film.



The microscope is set up in the usual manner, with the microscope lamp properly aligned and the substage condenser adjusted for maximum illumination and definition of the specimen to be photographed. The cross hairs in the lateral viewing telescope are then properly focused in order to compensate for any variation in the eyesight of individuals. Now the specimen is focused through the lateral telescope by means of the fine adjustment of the instrument itself. When both the cross hairs and the image to be photographed are sharp, the image on the film will also be sharp. Now ready for exposure, the cable release which actuates the prism is pressed in and, if necessary, locked. This swings the prism out of the way and permits full illumination to reach the film in the camera. The second cable release is then used to make the exposure (of course, after the shutter has been set to conform with the exposure required). Remember that the Leica shutter has to be open and left open while making photomicrographs. An Ibso shutter, which is an integral part of the Micro-Ibso Attachment, is used exclusively in this case. The shutter has the following speeds: Bulb, Time, 1 second, $\frac{1}{2}$ second, $\frac{1}{5}$ th second, $\frac{1}{25}$ th second, $\frac{1}{50}$ th second, $\frac{1}{125}$ th second. After one exposure has been made and, before moving to the next, the Leica shutter has to be closed and the winding mechanism turned until the next frame is in place; then the camera shutter is reopened.

Only Leica Cameras with interchangeable lenses may be used with this attachment. The standard camera lens must be removed and the cone-shaped funnel of the Micro-Ibso Attachment screwed into the camera lens mount. In certain cases, it may be desirable to leave the prism in while taking the photograph, thus enabling the user to view the specimen while the picture is being taken. This, however, increases the exposure time.

It is difficult to make a definite recommendation for a suitable film. Many of the leading microscopists prefer the slower but fine grain Eastman Micro-Film or Panatomic-X. A fine grain developer is desirable to retain the maximum detail in the negative—of great importance in photomicrography. For color work, one may use either the Ansco Color Tungsten or Kodachrome Type "A" film.

Assembly of the photomicrographic equipment involves but five simple steps. The first being, remove the lens from the camera and screw the Micro-Ibso Attachment into the lens mount. The eyepiece is then removed from the microscope and the attachment inserted into the monocular body. Finally, tighten the set screws that hold the attachment rigidly in position on the microscope.

The Leitz BS 48/77 Microscope fitted with the Micro-Ibso Attachment and the Leica Camera Model IIIc.

NOTES AND TIPS


LEICA GOES CLASSICAL . . . Sharing his love for music with equal admiration for the Leica, Adrian Siegel, cellist with the Philadelphia Philharmonic Orchestra, has found time to combine his hobby with his career. The result: a Leica exhibition entitled "Photographs of the Philadelphia Orchestra's British Tour," sponsored by the Philadelphia Art Alliance, and viewed by a mixed audience of musicians and photographic enthusiasts.

DEFINITIONS . . . The terms *photomicrography*, *macro-photography* and *microphotography* are often inter-used, misinterpreted, or simply not understood. These are the accepted definitions:

MICROPHOTOGRAPHY: The reproduction of any object on a very minute scale. The grainless structure of a collodion transparency lends itself particularly well to this work.

MACROPHOTOGRAPHY: Photographs of small objects reproduced at natural or larger than natural size, made without a microscope.

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Leica NEWS

ACCESSORIES NOW IN PRODUCTION

The new, hand-made Eveready carrying case, EXOOM, (No. 68,035a) accepts all models of the Leica Camera, when fitted with either the pre-war Xenon or new Summarit 50 mm. F:1.5 lenses. ↓



The Adjustable Micrometer Extension Tube, COOMI, (No. 70,442) is the most useful accessory to the Focalslide, accepting (with adapters) the range of Leica lenses from 50mm. to 135mm. focal lengths. ↓



↑ The new quick-snap tripod head, SPOOC, (No. 67,015) permits rapid removal of any Leica Camera from any standard tripod. It is shown here with the upper disc fitted to the base of a IIIc and the lower body attached to the new collapsible Table Tripod.

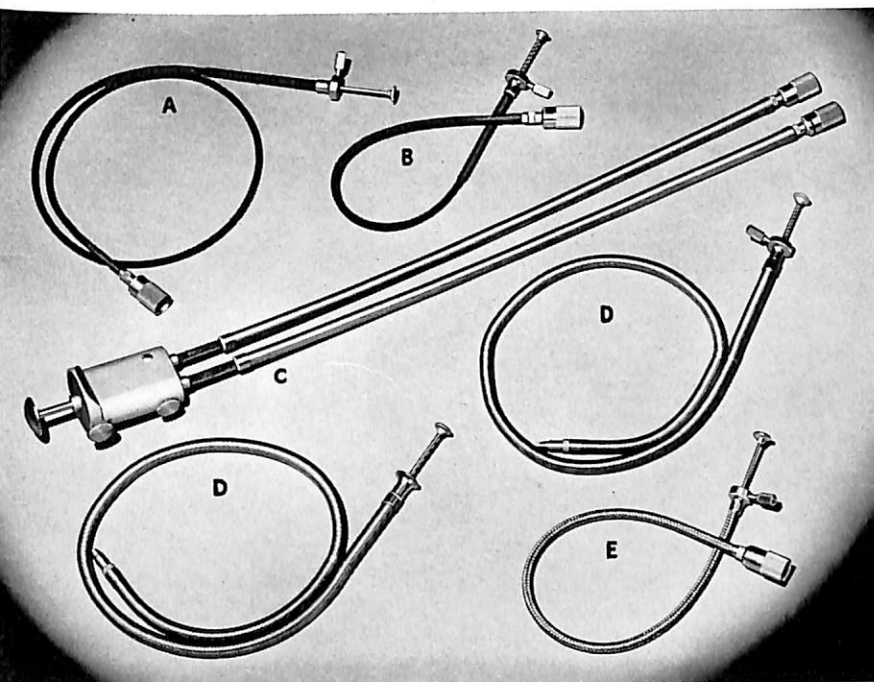
The four hand-made leather accessory cases shown here are the ETINI, (No. 68,116) for either of the Leica 90mm. lenses, the CASC, (No. 68,128) for the 127mm. or 135mm. lenses, the ETBIX, (No. 68,110) for any of the 50mm. Leica lenses including the Summarit, and the CASIE, (No. 68,204) for the Imarect finder. ↓



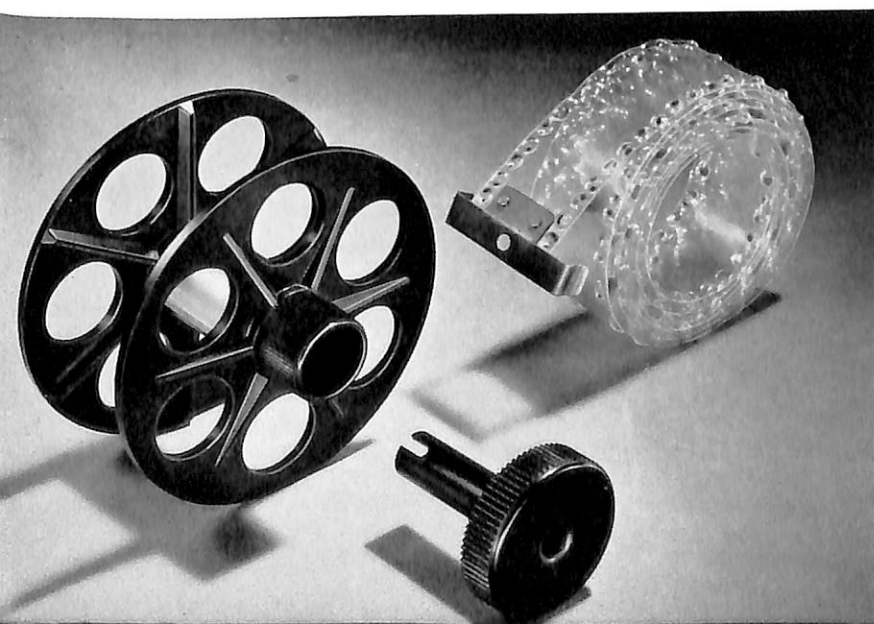
Leica NEWS

ACCESSORIES NOW IN PRODUCTION

Five different types of releases are now available for the Leica Camera and its accessories. 'A' is the 20" OPKOM, 'B' the 10" FINOT, 'C' the double-coupled release POORQ for the Mirror Reflex Housing, 'D' and 'E', the twin cable release for the Micro-Ibso attachment (one release for the prism, the other for the shutter) and 'E', FINOW, the metal sheathed 10" cable release. ↓

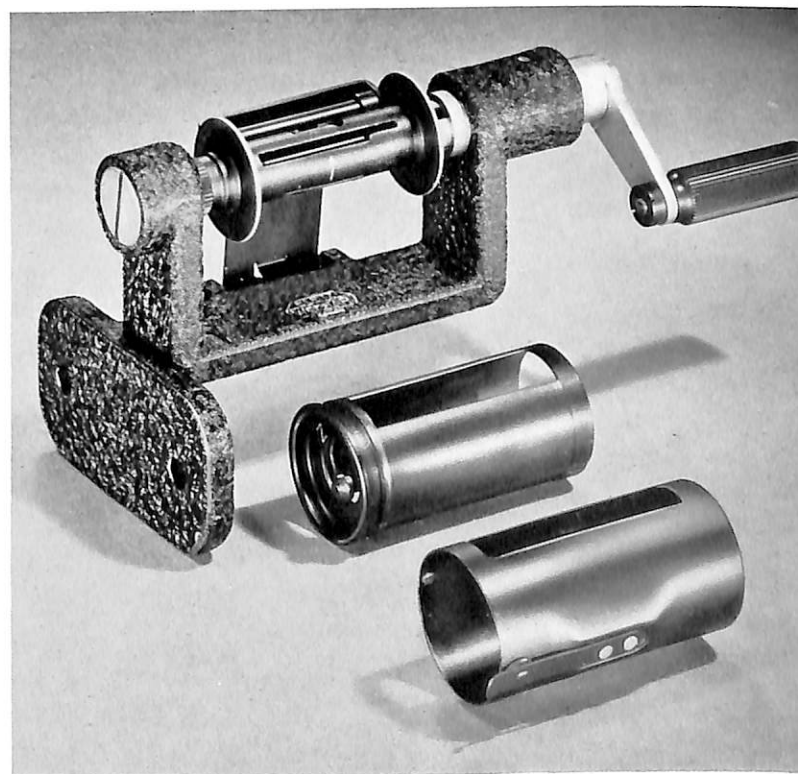


The center spool and apron may be used to develop two 35mm. films back-to-back in either the regular Correx Tank, or any similar sized developing tank. Photo labs find the Correx system of processing the only safe and certain method of mass development of monochrome minifilm, as a 'stack' of twelve or more loaded Correx spools can be suspended from a 'T' shaped stainless steel rod in any deep, 20 or 40 gallon commercial processing tank. ↓



↑ A complete description of the new Summarit 50mm., f:1.5 coated speed lens (No. 65,655, codeword SOOTA-B) is given on page ten.

The handy AFLOO film winder is back again, having been improved so as to accept the larger diameter film spools of the '250' Exposure (pre-war model) Leica. A spring loaded jockey roller, which rides the perforated edge and back of the film, insures positive and scratch-free loading of either monochrome or color stock on the spool of the FILCA roll film magazine. Two countersunk holes are provided for screwing the film winder bracket to the edge of the work bench. ↓



Continued from page 5

surface toward which photo floods are directed at an angle of 45° . A similar size cardboard sheet (with a cut-out to receive the slide) is placed about a foot in front of this surface. Use either a triple-extension view camera or your Leica with Focaslide. Thus, you obtain diffused light through the transparency which enables you to copy on black and white, or to make a duplicate enlargement on color film. Be sure to use the proper film rating when copying, for this is several times lower than the regular tungsten rating.

A knowledge of lenses is a must in the field of portrait color photography. Some conflicting ideas concerning focal lengths, angles, and resulting effects can only be cleared by working with your Leica objectives. When compared at the same distance, it makes no difference what angle or focal length lens is used for the depth or roundness of the subject. The difference does occur at the F opening, as a longer focal



Both monochrome negatives made with the Focomat enlarger on 4" x 5" flat sheet film.



length gives a smaller depth of focus. This longer length will record a lesser angle, thus revealing merely a section of what a shorter focal length lens will show. To be more concise, here are the results when the same image is taken at 10 feet when using all lenses (35mm. W. A., 50mm., 90mm., and 135mm.) with the same F opening and shutter speed. In the resulting negatives, the 35mm. lens will reveal the full figure with considerable space on top and bottom. As we increase the focal length of the lens, the amount of space above and below the figure will decrease proportionately, until with the 135mm. lens shot, we will see less than half the full figure (the customary bust shot). When comparing the head size, however, we of course will find a larger head with the 135mm. lens in the same picture area. In brief, the longer the focal length of the lens, the larger the object size at the same distance. *Continued on next page*

The decision as to which lens to use depends, for the most part, on the particular effect you are striving to achieve. By viewing the subject through the Imairect Finder until the desired portion is framed, the most suitable focal length lens to use will be indicated. In this way, the picture area will be filled with exactly what is desired.

I believe that the only certain system for good color portraiture is to follow the basic routine outlined above—plus your own experience and a thorough knowledge of your Leica lenses. THE END



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NOTE ON REGISTRATION . . . It has come to our attention that the majority of ex-servicemen have not registered their Leica Camera and lenses which they obtained overseas and in Army PX's because of the fear of having to pay customs duty on the equipment. This impression is entirely false, a clause in the GI Bill states that all servicemen are absolved from this payment. The purpose of registering your Leica equipment is for your protection. If lost or stolen, we can attempt to trace it through the records we have on hand—no records, no tracing. In addition, the subscription lists for LEICA PHOTOGRAPHY, and mailing lists for Leica literature are compiled from the registered Leica owners.

BUBBLE TROUBLE—JACOB DESCHIN

Continued from page 6

jective is resolving power, definition, color correction and freedom from aberration. All Leitz lenses are tested at every stage of their manufacture to assure 100 per cent efficiency for each of these important characteristics. Even the experts agree on the relative unimportance of the bubble:

"... a few bubbles in the elements of a photographic objective merely reduces the transmission (of light) by a negligible amount," say Arthur C. Hardy and Fred H. Perring, writers of the authoritative work, "The Principle of Optics."

"These bubbles, enclosed in the glass in the course of the second melting . . . cannot be removed . . . The sole effect is to diffuse about one-thousandth part of the light, an absolutely negligible amount," writes Professor L. P. Clerc, author of the famous source book, "Photography, Theory and Practice."

Dr. Konstantin Pestrov, of Bausch & Lomb's Scientific Bureau, says, "The fact that a lens contains bubbles or is free of them has no basic significance . . . Millions of amateurs and many thousands of professionals have been using 'lenses with bubbles' without noticing any adverse effects."

To repeat: bubbles, if present in a lens in small quantities have no effect on the photographic image. This is

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fact. Any photographer can rest assured that any optical firm of repute will market only those lenses that are of the finest quality. THE END

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2. 11c Leica Camera with same equipment as No. 1. Total Value \$497.70
SPECIAL CHRISTMAS PRICE \$449.75
3. 111c Leica Camera with Elmar 50mm Coated F:3.5 Lens; Elmar 35mm Wide Angle Coated F:3.5 Lens; and Imarct Universal View Finder. Total Value \$480.20
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MEMORIES OF OSKAR BARNACK— ERNST LEITZ, JR.

Continued from page 9

in the corners of this first aerial Leica picture is some sharpness missing. The Kino-Tessar, which was used, could not fully cover the Leica size.

The war came. And with it food shortages which greatly worried this family provider; but here was not an ordinary man, he found a way out. He took his small camera to the neighboring villages, snapped this farmer and that wife, and the finished portraits were 'compensated' against butter and eggs. But the toll on his health was great, and when the war neared its end, Oskar Barnack was more than ready for a vacation. My grandfather invited him for a long rest to his old country home in the Southern Black Forest. Here, like good friends, they roamed the woods together; but always the camera had to be along. A picture of my grandfather on his Sunday constitutional taken at that time by Barnack must be one of the oldest Leica photographs.

But Barnack did more than take pictures with the Leica; he was constantly attempting to improve it. Only being able to devote his spare time to the task, it wasn't until the inflation period reached its height that the former exposure aid became a marketable camera. The Elmax lens, especially designed for the Leica by Max Berek, contributed greatly to this development. (*We have just learned, with deep regret, of the passing of Prof. Berek on Oct. 15, 1949. Editor.*) But hard times were to follow the apparent boom of the inflation, and my father and his co-workers now concentrated all their efforts on the problem of how to master those difficulties. The small camera was among the proposals made for the reorganization program. The problem being, would such a novelty as a camera for movie film find any buyers? Would the tremendous sum needed for production ever be repaid? Many were the arguments and discussions. Finally my father called a meeting of all those who could contribute to the solution. For hours arguments and counter-arguments were exchanged without a clear opinion being formed. My father finally broke up the discussion; his decision was made. Barnack's camera would be manufactured! And in the Spring of 1924 the Leica appeared at the Leipzig Fair.

From then on Oskar Barnack devoted all his work to the Leica. Until his death he stayed at his place in the assembly department working on the elimination of small flaws and refining the camera and its accessories. Amusing was the way he reacted to impractical suggestions from customers for the further development of the Leica. In short marginal notes he'd hit the nail right on the head. Quite often you could read them: 'underexposed' or 'completely underexposed.'

In 1935 his health took a visible turn for the worse. While his physical ailment did not show up much at first, he had become quite depressed. On New Years Day, 1935, he celebrated his 25th anniversary with the firm. It was a day of great honors for the creator of the Leica. A few days later I visited him in the clinic in Bad Nauheim. It was the last time I saw him, for in the night of January 16th he passed away." THE END

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* * *

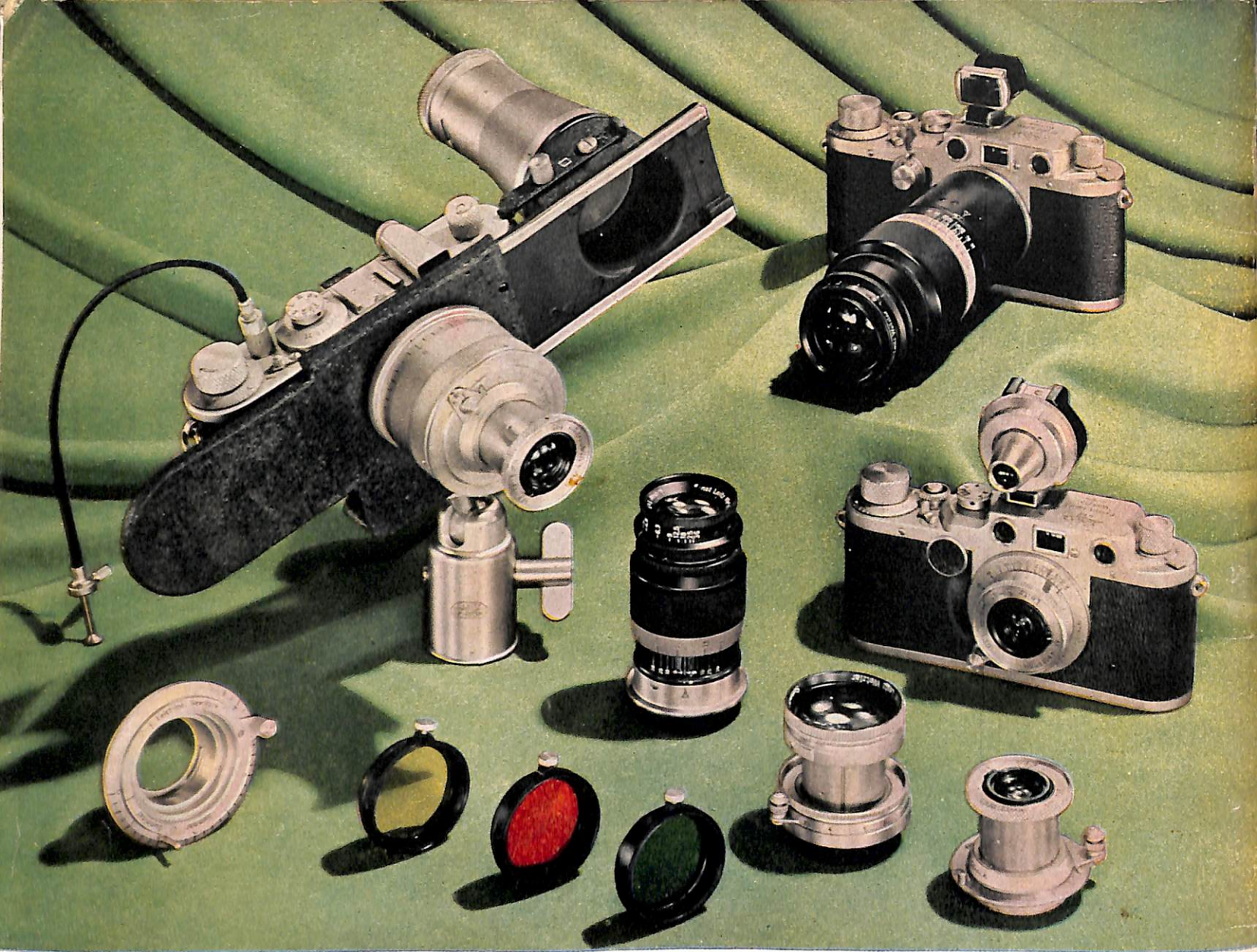
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